



Federal Medical Station (FMS)

Past, Present and Future

APhA Federal Forum

17 March 2006

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Office of Mass Casualty Planning



Federal Medical Station (FMS) Deployable Medical Surge Capacity “ Vision”

- ❖ Provide surge medical capacity (equipment, materiel, pharmaceuticals) to communities overwhelmed by mass casualties**
- ❖ Are standardized, scalable, and adaptable for use across the mass casualty care continuum**
- ❖ Can be staffed by approved personnel for any federal, state or local agency or combination of agencies**
- ❖ Employ modular configuration and are designed for rapid transportation by land or air and for integration into a range of sites**



Federal Medical Stations Standardized Capabilities Across Agencies

- ❖ **Type I (Advanced):** will have the capability to care for severely ill or injured patients, equivalent to conventional operating room, ICU, and basic laboratory – being developed by DHS
- ❖ **Type II (Specialized):** Configured for specific clinical scenarios, such as respiratory isolation. Will have capability of Type III, plus advanced care for specific clinical requirements and populations, e.g., burn patients. Future prototypes to be developed
- ❖ **Type III (Basic):** Low to mid-level acuity of care to provide platform for PHS teams, quarantine function, alternate care facility to augment community hospital capability
- ❖ **Type IV (Medical Needs Shelter)** – longer term storage of patients and caregivers – similar acuity to Type III



Federal Medical Station Legal Authority

- ❖ **HHS has been given the responsibility under mandates in the National Response Plan (NRP) and the Homeland Security Presidential Directive (HSPD) 10 to develop a comprehensive plan to address this challenging health problem.**
- ❖ **The statutory authority for the Federal Medical Station program pursuant to section 321 of the Federal Medical Act (42 U.S.C. 248) and intra-agency agreements will be executed in accordance with the Economy Act (35 U.S.C 1535).**
- ❖ **The Stafford Act may provide additional guidance for any events that are declared National Emergencies.**



Federal Medical Station Type III CONOPS

- ❖ **Federal asset will be requested by States to assist in a mass casualty event**
- ❖ **Designed to be established in a shelter of opportunity**
- ❖ **Hospital resources can focus on the most seriously ill**
- ❖ **Station can provide quarantine comfort care for large numbers of people**



Federal Medical Station Type III Attributes

- ❖ **Scalable to the incident**
- ❖ **Modular configuration**
- ❖ **Mobile for maximum geographic distribution**
- ❖ **Quickly integrated to the site**
- ❖ **Predictable resources**
- ❖ **Modeled for all age populations**



Federal Medical Station Type IV Mission Statement (DRAFT)

- ❖ **An FMS IV will provide scalable (in size), modular and rapidly deployable health and medical care to those patients who have non-acute medical, mental health, or other health-related needs that cannot be accommodated or provided for in a general shelter population.**
- ❖ **An FMS IV is designed to provide health and medical care for patients with needs such as:**
 - ❖ **Conditions that require observation, assessment or maintenance**
 - ❖ **Chronic conditions which require assistance with the activities of daily living and do not require hospitalization**
 - ❖ **Need for medications and vital sign monitoring and who are unable to do so at home**
 - ❖ **Conditions that require the level of care provided by an FMS**

An FMS is not an acute care hospital, nursing home or emergency department



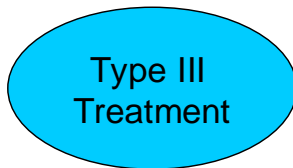
Basic Concept: HHS Federal Medical Station

Type III 250 Bed Module

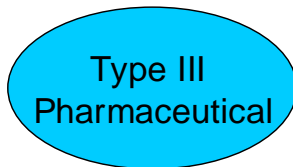
Configuration



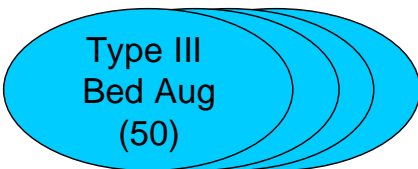
- Administration
- Support
- Feeding
- Quarantine
- Beds(50)
- Housekeeping
- First Aid Equipment
- Pediatric Care
- Adult Care
- Personal Protective Equipment



- Primary Care
- Non-Acute Treatment
- Special Needs



- Pharmaceutical
- Special Medications
- Prophylaxis



- Beds
- Bedding
- Bedside Equipment





FMS Type III Prototype Demonstration 4-7 January 2005 Denver CO

Objective: Demonstrate that FMS III can decompress fixed hospital capacity by receiving stable inpatients

- ❖ Validated the concept and tested capability against patients chosen for transfer in an exercise conducted independently by staff at Denver Health, an urban, acute care hospital**
- ❖ 112 medical, surgical, and pediatric patients screened, 30 were deemed appropriate for transfer to FMS Type III (32 were discharged home)**
- ❖ Matching these “real” patients against FMS III capability identified areas requiring reinforcement and will provide the basis for patient selection guidelines.**



Host requirements

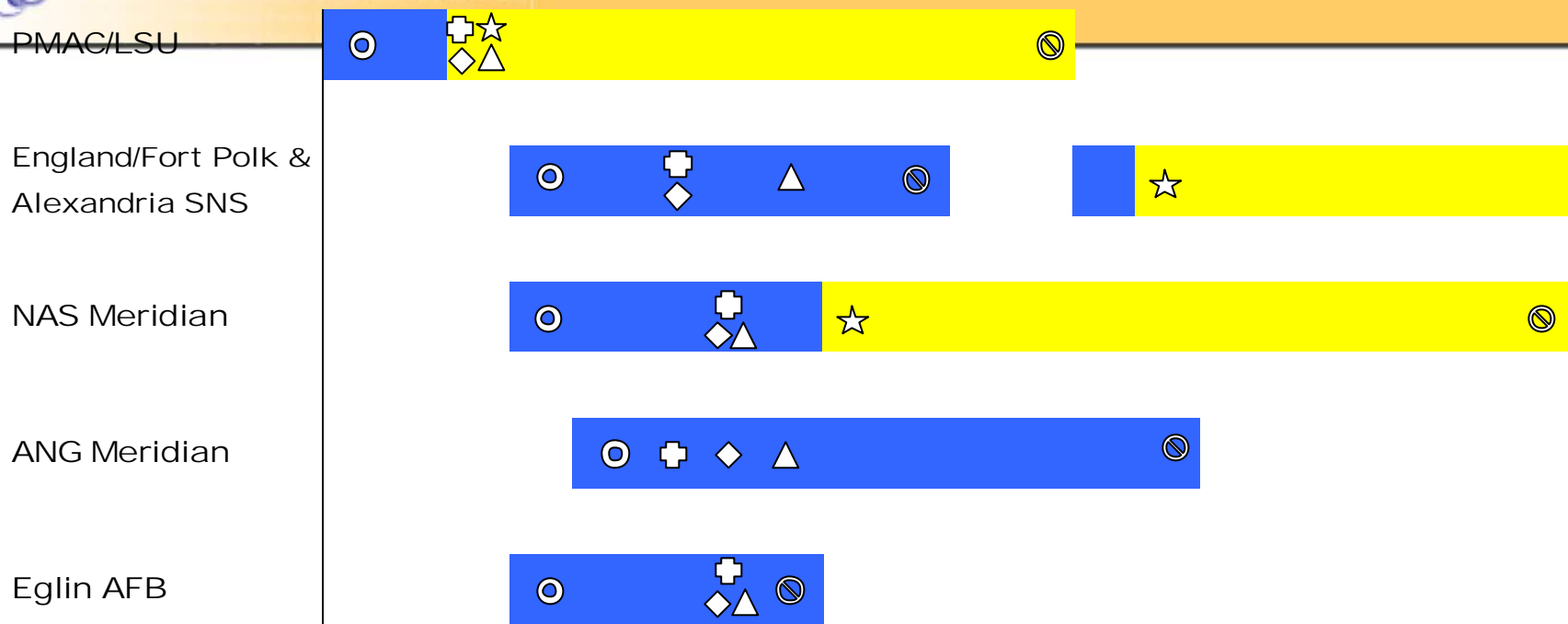
- The following are FMS requirements for the hosting facility to provide:
 - -40,000 square feet of enclosed space
 - - perimeter security
 - - waste removal
 - - electrical power source and distribution
 - - potable water
 - - ice
 - - fork lift for off loading/set-up
 - - local transportation
 - - billeting for 150 personnel per FMS
 - - latrine/showers for patients
 - - access to civilian medical personnel and contractors employed in patient care, patient transportation, and other supportive services
- Ideally each installation should be able to provide:
 - communications support
 - food service for staff and patients
 - access to airstrip or helipad for air evacuations
 - medical oxygen
 - laundry services
 - mortuary support
 - refrigeration

Background

- **FMCS III designed to provide quarantine or bed surge capability in MCIs that overwhelm local healthcare infrastructure**
- **Prior to Katrina's landfall, ASPHEP ordered deployment of FMCS material to LA**
 - **DSNS subsequently ordered to procure additional FMCS III packages (10 sets, 2,500 beds)**
- **FMCS III pharmacy and med supply modules reworked to facilitate procurement; staffing plan adjusted; program name change to FMS**



OPHEP FMS Units in Hurricane Katrina Relief Effort



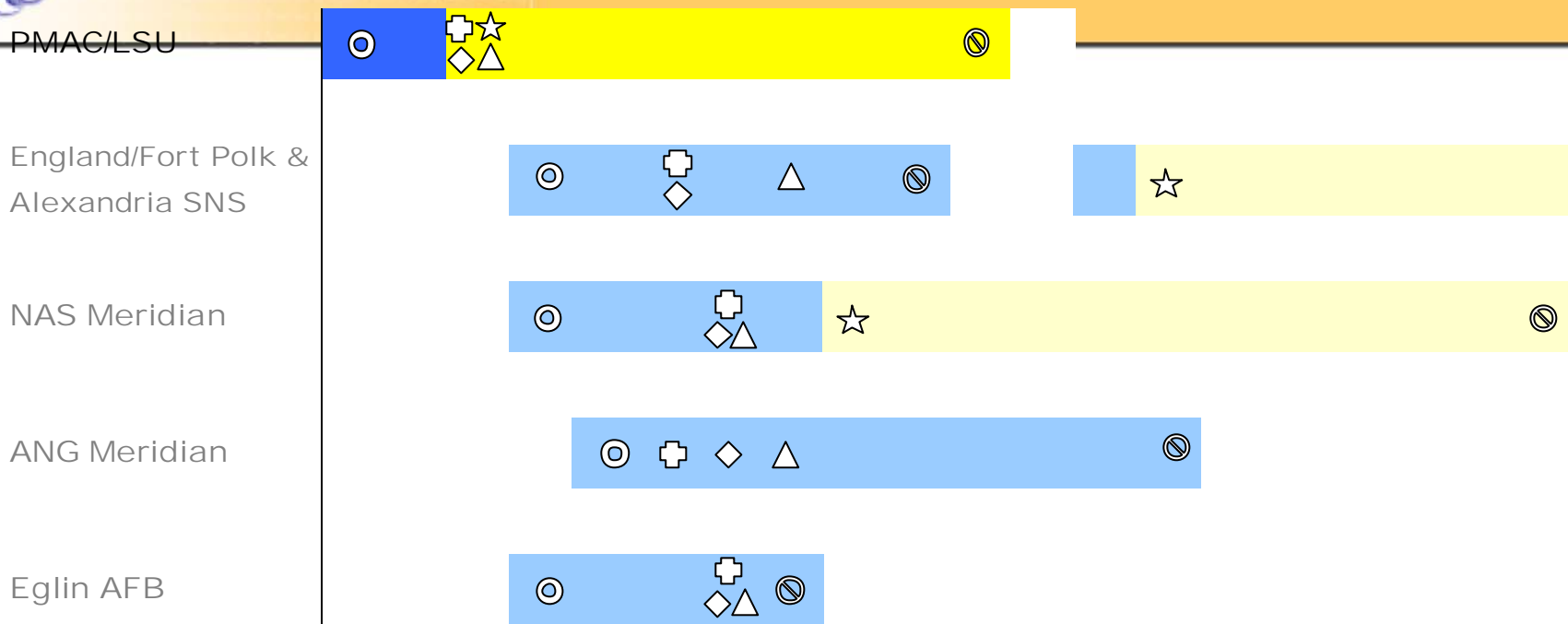
Key

- ⊙ initiated
- ⊕ supplies arrive
- ◇ personnel arrives
- △ first beds set up
- ☆ sees first patient
- ⊗ closed

Note: The PMAC/LSU and Alexandria SNS facilities were state-run medical shelters that were augmented with FMS equipment and supplies, and USPHS personnel. The only true FMS that stood up and saw patients during Katrina was the NAS Meridian.



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PMAC/LSU, Baton Rouge, LA

Operating period

Aug. 30 - Sept. 7

Number of FMS units

4 (1,000 beds; 1 complete, 3 incomplete sets)

Beds set up

~150

Peak staff census

138 (37 PHS, 51 IMERT, 35 DMAT)

Peak patient census

80 (triaged 15,000, admitted 6,000)

Peak caregiver/family census

0

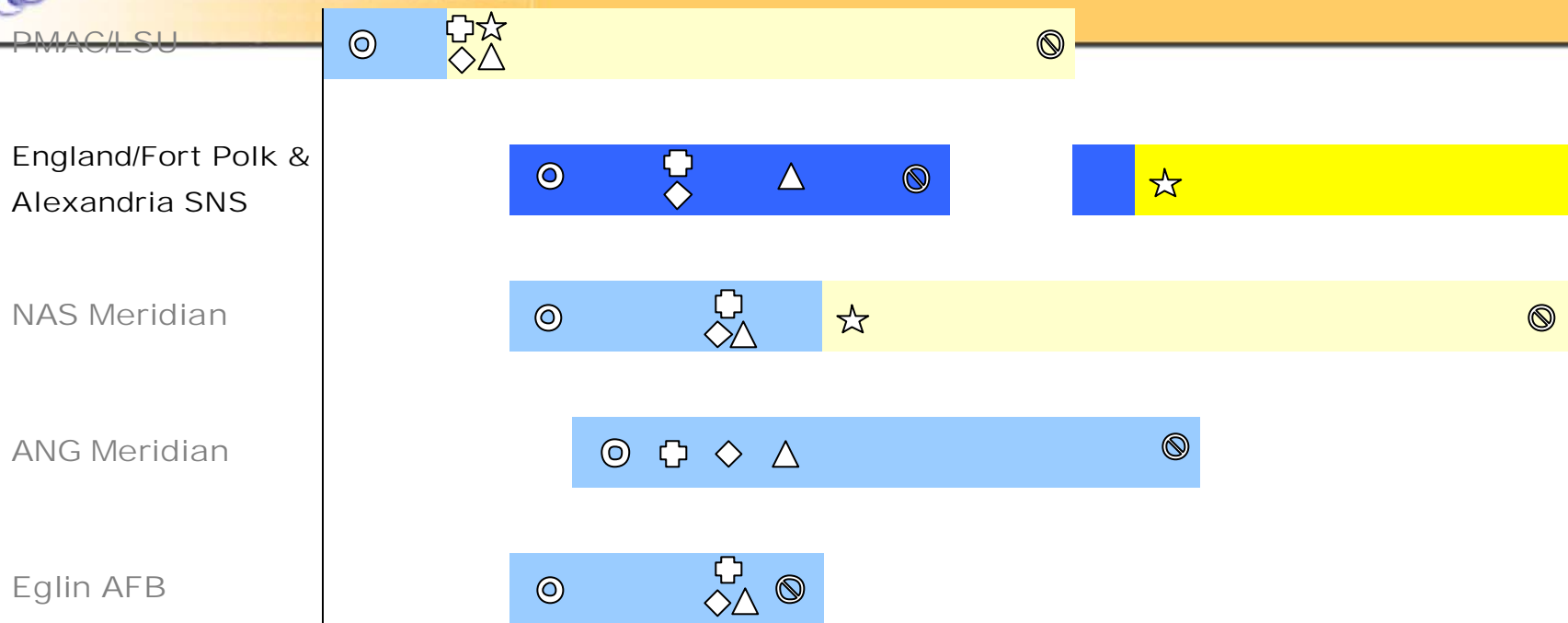


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OPHEP FMS Units in Hurricane Katrina Relief Effort

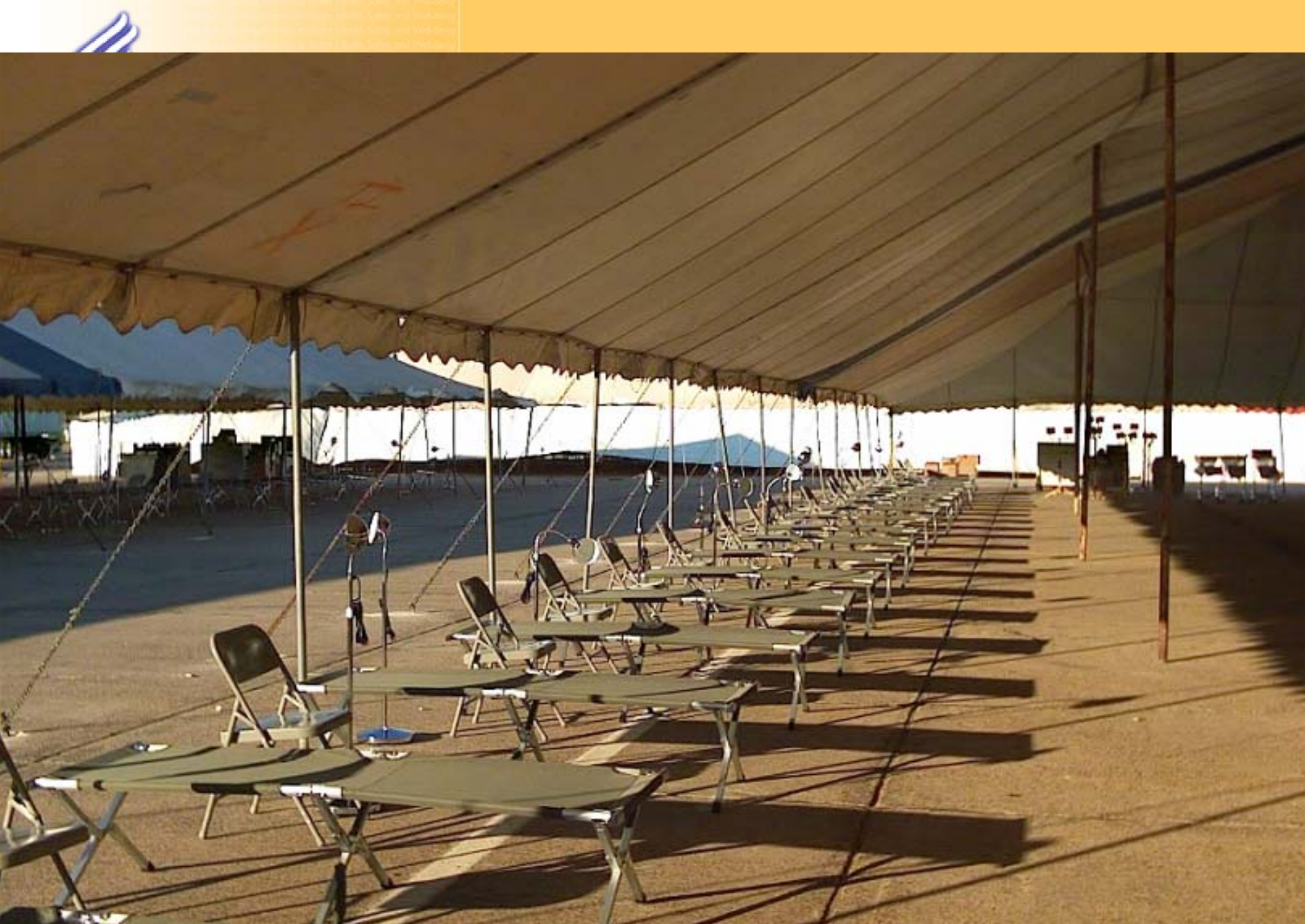


Key	8/28	8/29	8/30	8/31	9/1	9/2	9/3	9/4	9/5	9/6	9/7	9/8	9/9	9/10	9/11	9/12	9/13	9/14	9/15	9/16
⊙ initiated																				
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⊗ closed																				
					Alexandria, LA				Fort Polk/England Alexandria SNS											
					Operating period				n/a				Sept. 10 - Oct. 8							
					Number of FMS units				4 (1,000 beds)				n/a							
					Beds set up				200				250							
					Peak staff census				150				46 (22 PHS)							
					Peak patient census				n/a				242							
					Peak caregiver/family census				n/a				51							

England Air Park, Alexandria, LA

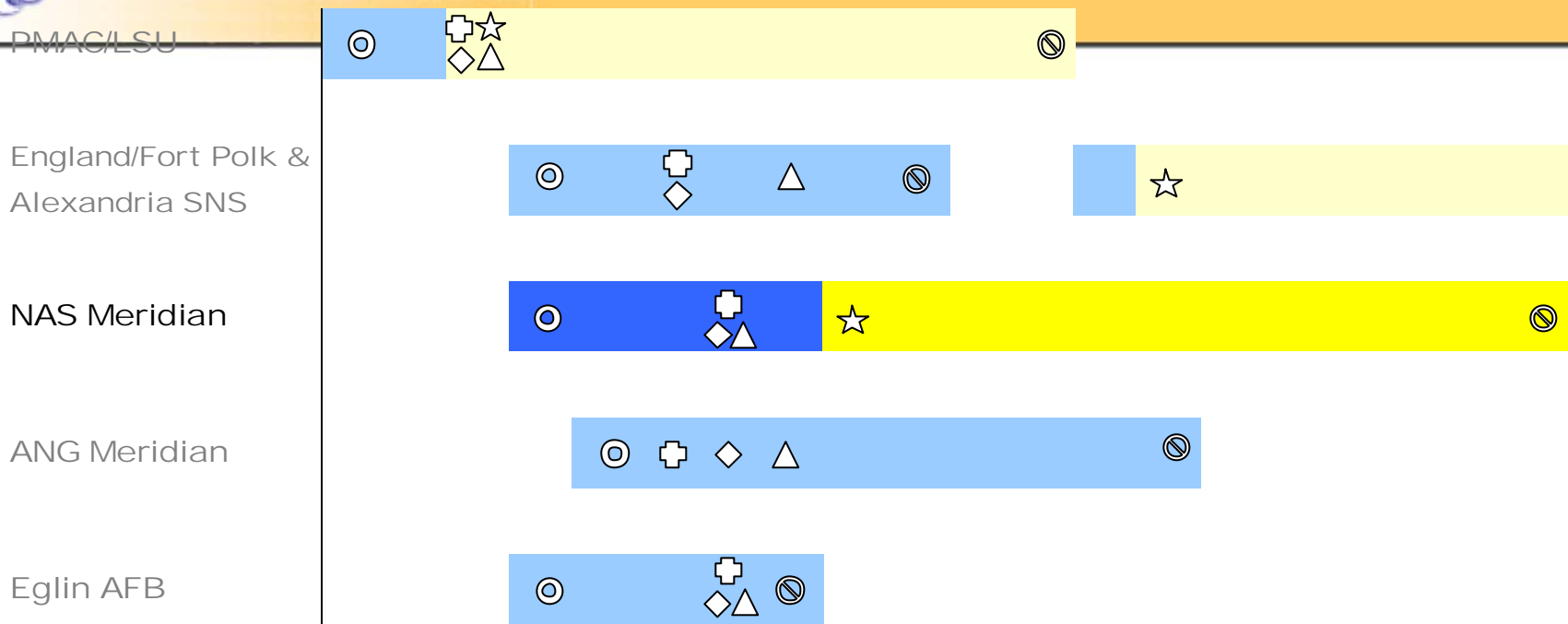








OPHEP FMS Units in Hurricane Katrina Relief Effort



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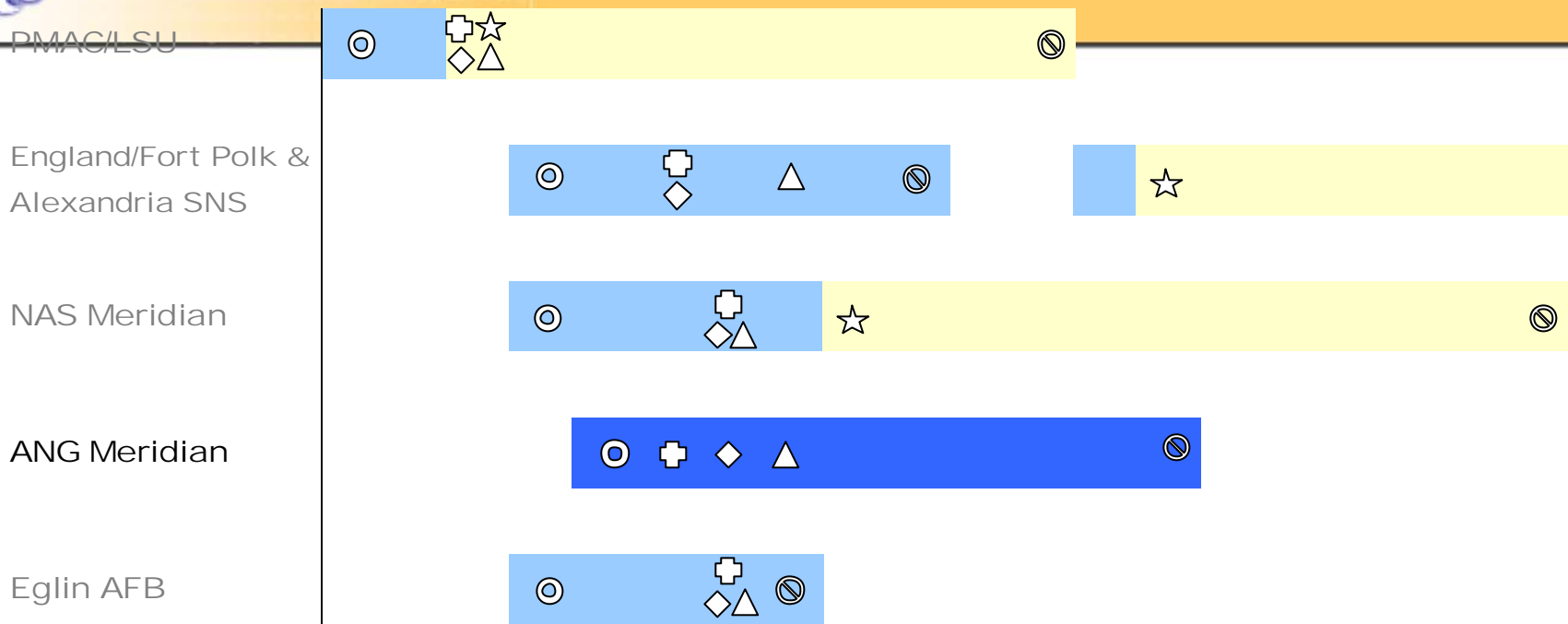
Naval Air Station, Meridian, MS

Operating period	September 3-16
Number of FMS units	2 (500 beds)
Beds set up	480
Peak staff census	79
Peak patient census	48 (additional 27 outpatients)
Peak caregiver/family census	0





OPHEP FMS Units in Hurricane Katrina Relief Effort



Key

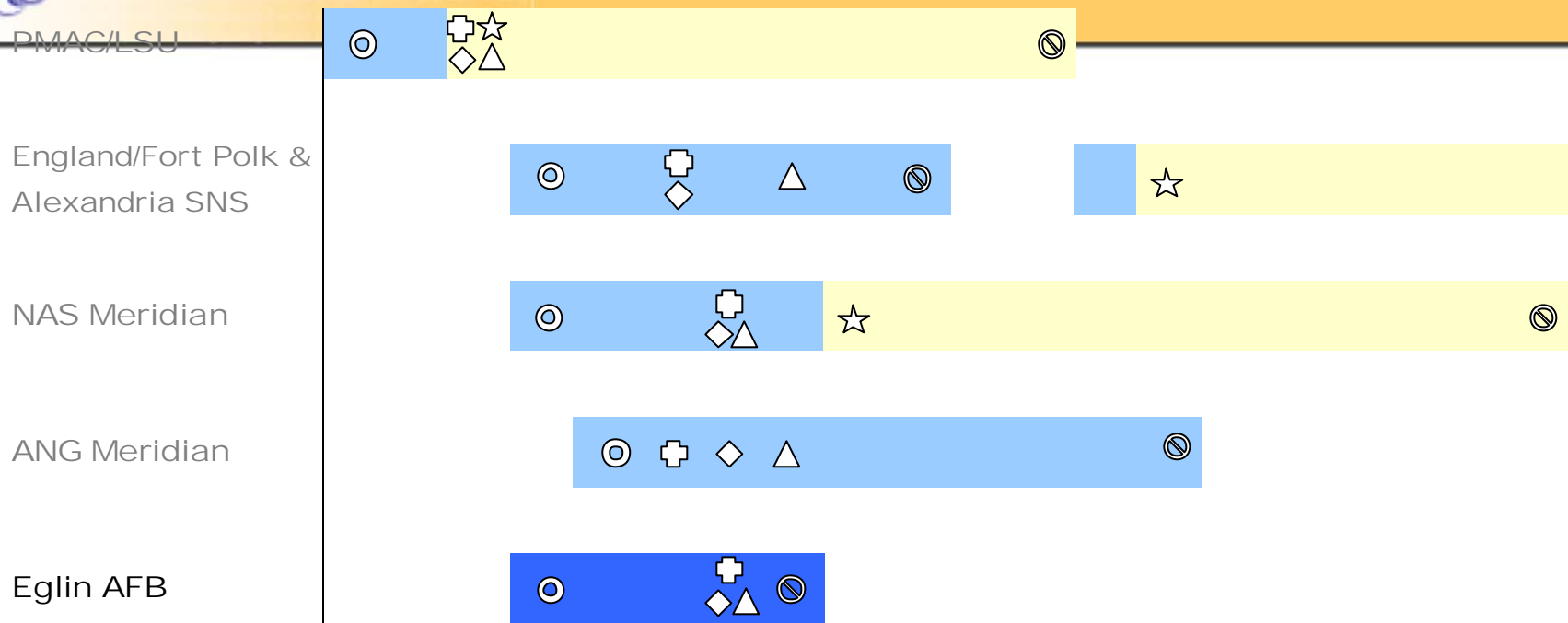
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Key Field Air National Guard Base, Meridian, MS

Operating period	n/a
Number of FMS units	4 (1,000 beds), includes Eglin assets
Beds set up	350
Peak staff census	165 (105 PHS)
Peak patient census	n/a
Peak caregiver/family census	n/a



OPHEP FMS Units in Hurricane Katrina Relief Effort



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⊗ closed

Eglin Air Force Base, Pensacola, FL

Operating period Sept. 3 - Sept. 4

Number of FMS units 2 (500 beds)

Beds set up 100

Peak staff census 100 (100 PHS)

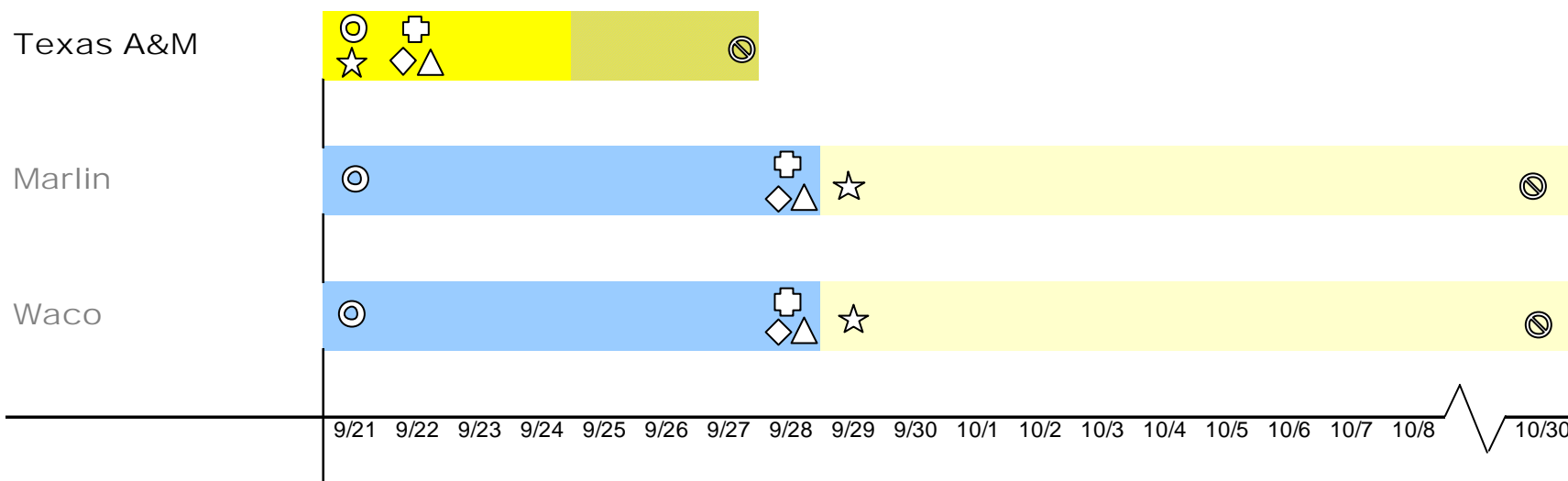
Peak patient census n/a

Peak caregiver/family census n/a



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FMS Units in Hurricane Rita Relief Effort



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Texas A&M, College Station, TX

Operating period	Sept. 22 - Sept. 27
Number of FMS units	2 (500 beds)
Beds set up	250 (400 additional local beds)
Peak staff census	131
Peak patient census	327
Peak caregiver/family census	160



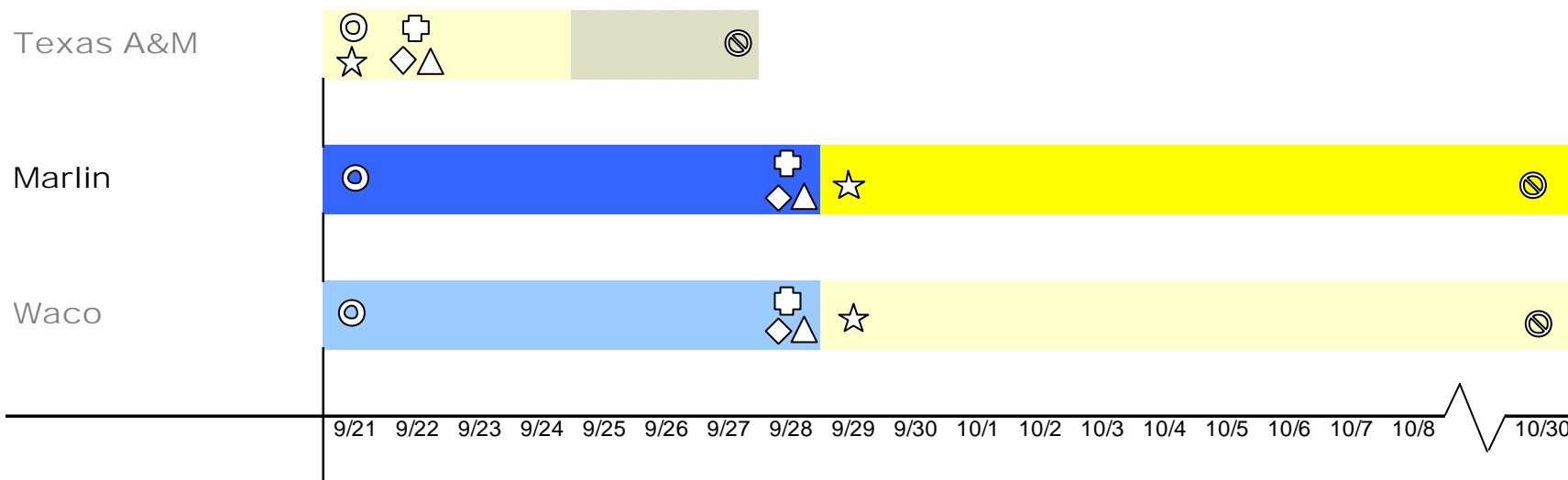






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FMS Units in Hurricane Rita Relief Effort



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VA facility, Marlin, TX

Operating period	Sept. 29 - Oct. 30
Number of FMS units	1 (250 beds)
Beds set up	175
Peak staff census	154 (78 PHS, 75 VA, 1 MRC)
Peak patient census	121
Peak caregiver/family census	37

Marlin VA hospital, Marlin, TX



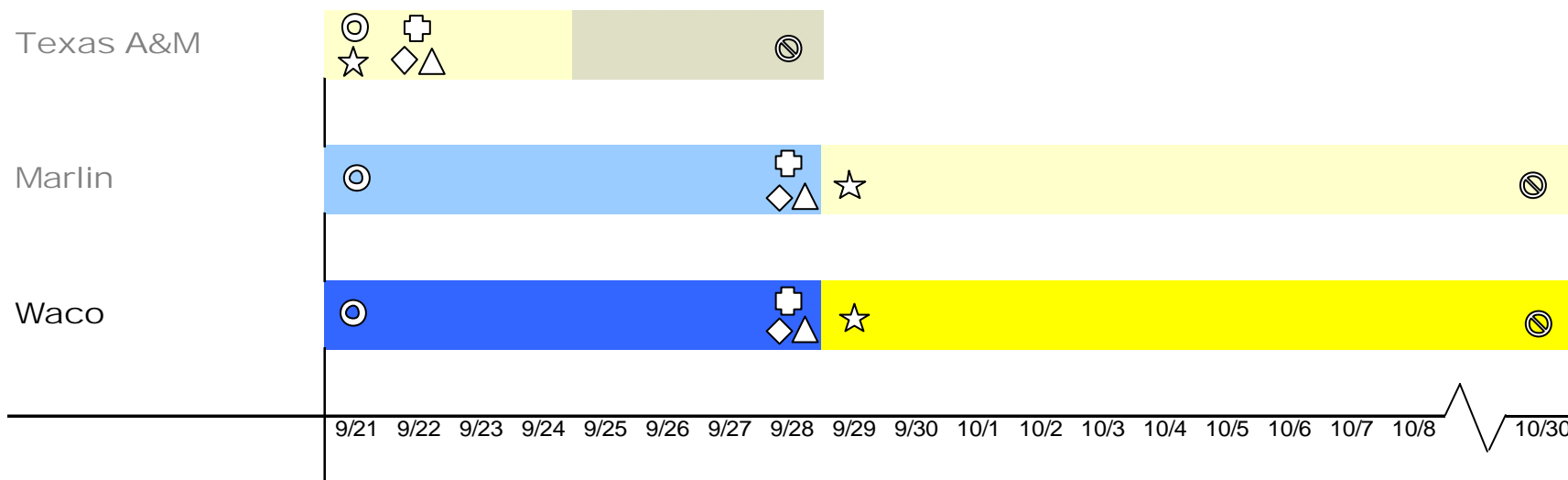






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FMS Units in Hurricane Rita Relief Effort



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VA facility, Waco, TX

Operating period	Sept. 29 - Oct. 30
Number of FMS units	1 (250 beds)
Beds set up	198
Peak staff census	180
Peak patient census	118
Peak caregiver/family census	80



ENTRANCE
PODIATRY
KT PACT





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Common medical conditions among FMS patients

Condition	% affected (n=325)
Hypertension	40.9
Behavioral health issues	36.9
Diabetes	24.3
Heart disease	16.0
Asthma	15.1
Epilepsy	6.8
Blind/partially blind	6.2
O2 dependent	4.9
Morbid obesity	4.9

Waco, Marlin, and Meridian NAS

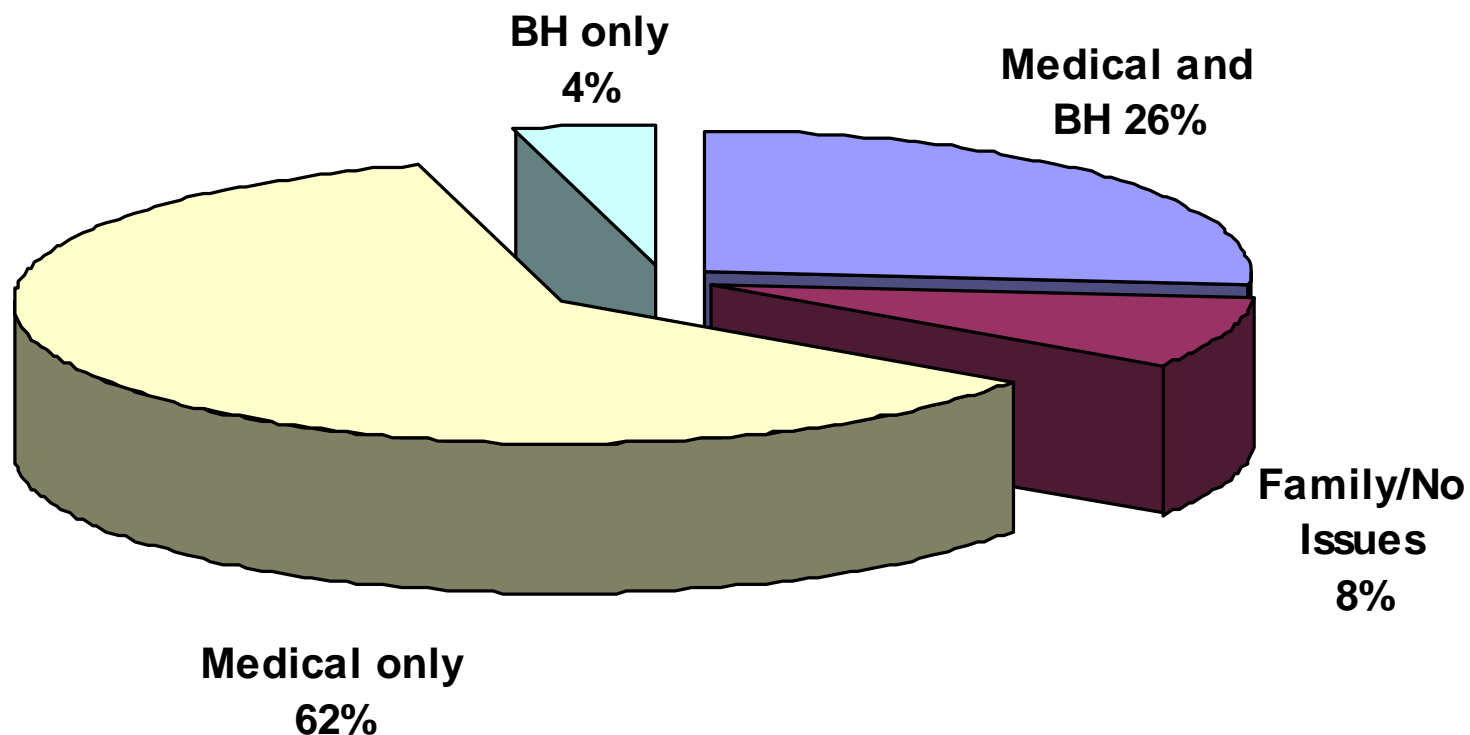
Common behavioral health conditions

Condition	% affected (n=120)
Depression	27.1
Schizophrenia/Psychosis	20.2
Anxiety	14.7
Bipolar	11.6
Alzheimer's/dementia	9.3



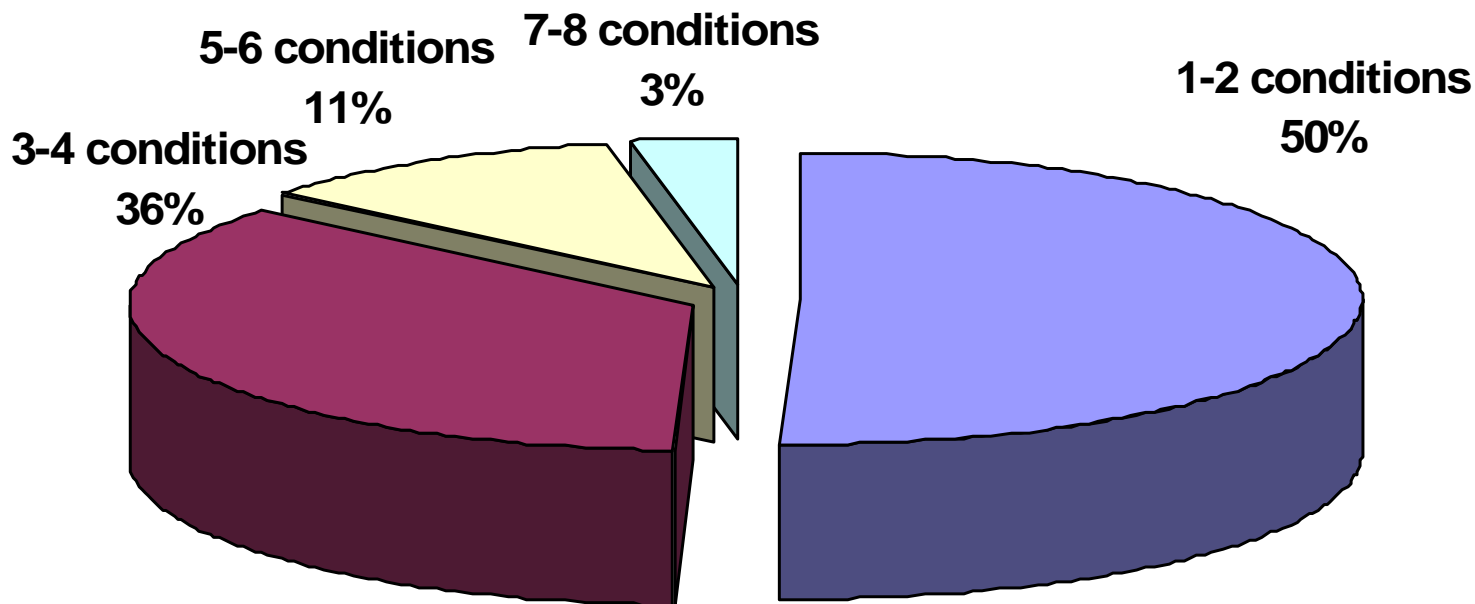
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Prevalence of medical and behavioral health conditions



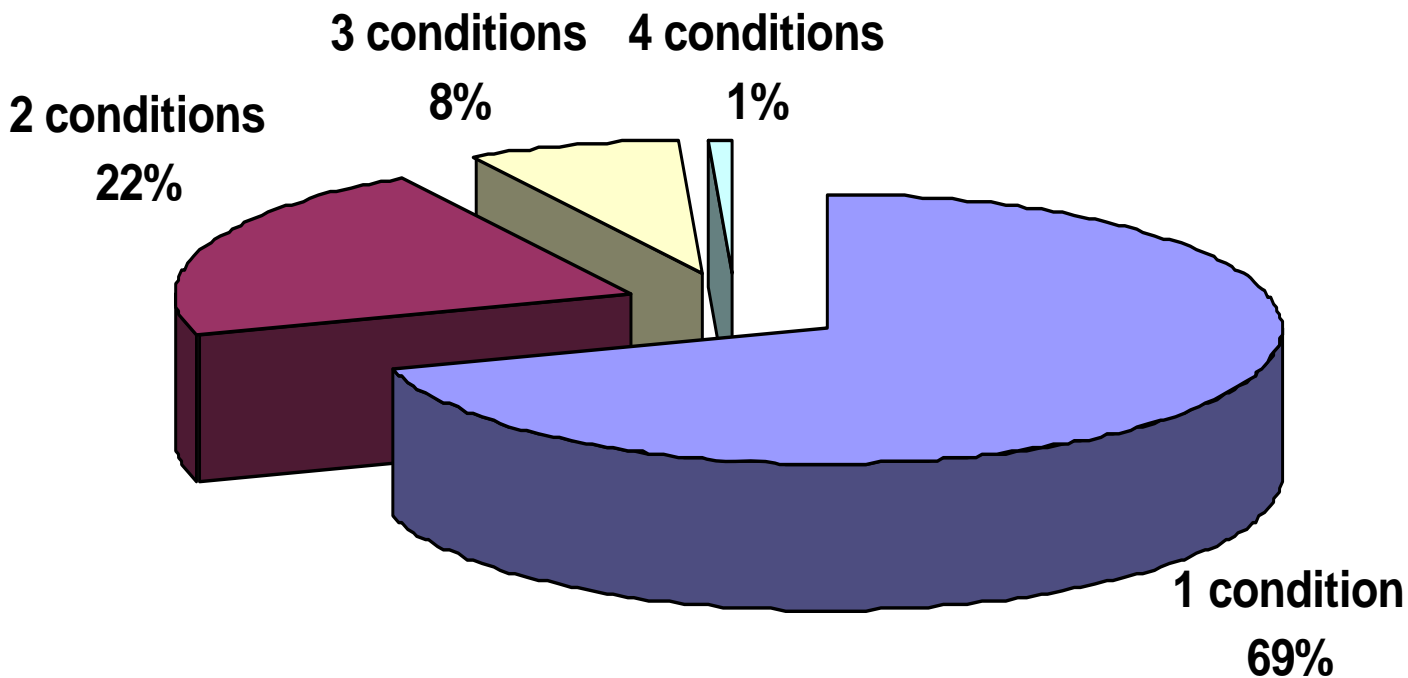
Waco, Marlin, and Meridian NAS (n=380)

Prevalence of multiple medical conditions per patient



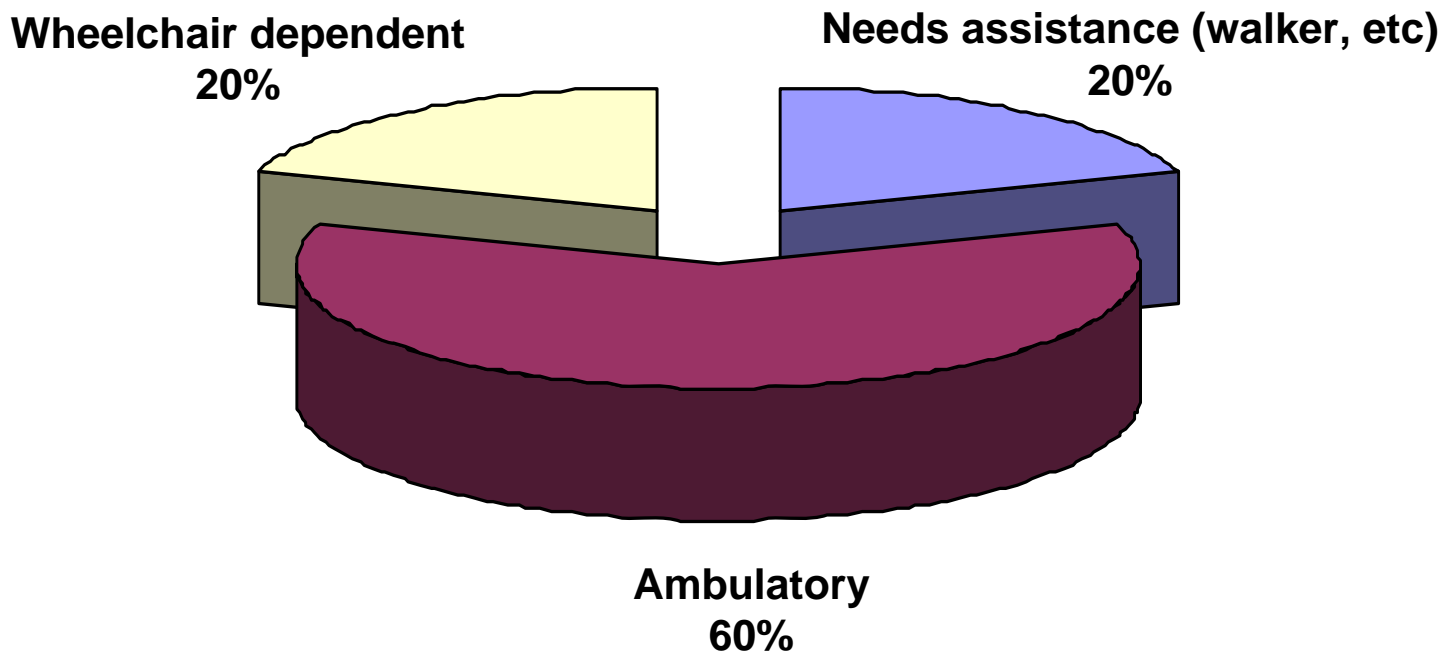
Waco, Marlin, and Meridian NAS (n=325)

Prevalence of multiple behavioral health conditions per patient



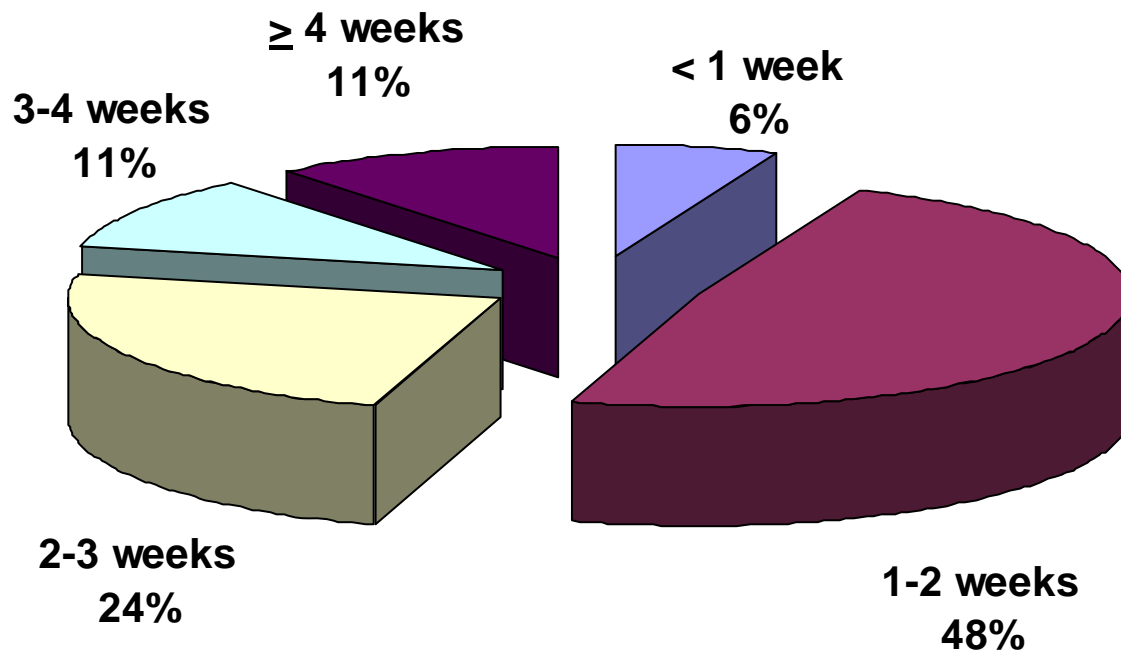
Waco, Marlin, and Meridian NAS (n=120)

Prevalence of mobility issues among FMS residents



Waco, Marlin, and Meridian NAS

Length of Stay for patients/family



FMS	Average LOS (days)
Marlin	15.4
Waco	16.0

Discharge destinations

Destination	Meridian NAS	Marlin	Waco
Home	6%	67%	63%
Family/friends	30%	22%	23%
Assisted living	19%	4.5%	9%
New/semi-perm housing	19%	4.5%	3%
Hospital	26%	1%	1%
Federal institution	0	1%	1%

Key issues identified

- **Engagement of FMS assets prior to State request or establishment of SERT**
 - Integration with State operations and overall ESF 8 response
- **C2 and management support**
 - Lines of authority for field command and strategic control of FMS assets
 - Need for on-site management support (logistics, planning, admin) and contracting capability
- **Logistics and infrastructure requirements**
 - Availability and location of shelters of opportunity
 - Establishment of contract support

Key issues identified (cont)

- **Medical operations**
 - **Broad range in patient population**
 - **Equipment and supply shortfalls**
 - **Model of care delivery**
- **Personnel**
 - **Ability to fill key deployment roles (management support and clinical)**
 - **Credential verification, legal protections for staff**
 - **Education and training**



Future/Present Initiatives

- **Public Relations**
- **Training Program and a Training FMS**
- **IT/Communications Package**
- **Structures, generators, logistical burden on host**
- **National food service contract**
- **Electronic Medical Records and standard forms**
- **Type II burn surge**
- **Regionalization of equipment caches**
- **Scope of Care meeting**
- **ICS structure for FMS**